PBD Special Announcement

Physical Biosciences Division

Corie Ralston, a biophysicist staff scientist at Berkeley Lab, has been appointed as Head of the Berkeley Center for Structural Biology (BCSB) by Physical Biosciences Division (PBD) Director Adam Arkin, effective immediately. The BCSB is a national user facility that operates five macromolecular crystallography beamlines at the Advanced Light Source, and hosts over 100 industrial and academic research groups each year.

Corie received her B.S degree in Physics from the University of California at Berkeley and her Ph.D. in Biophysics from the University of California at Davis. She spent several years as a post-doctoral fellow at the National Synchrotron Light Source at Brookhaven National Laboratory and the Albert Einstein College of Medicine at Yeshiva University, studying the dynamics of RNA-folding using synchrotron x-ray radiation. She returned to California in 2002 to take a position as a Research Scientist at the Berkeley Center for Structural Biology, where she ran the Howard Hughes Medical Institute crystallography beamlines at the ALS for a number of years. In 2008 she became a Staff Scientist and Operations Manager for the BCSB.

Ralston's research interests include the structural and functional characterization of Chaperonins, a family of proteins of immense importance to cellular health; Chaperonins guide the transition of partially folded, newly synthesized, or mis-folded proteins to the native state. In addition to utilizing the standard technique of crystallography to study these systems, she is actively pursuing development of an x-ray ‘footprinting’ program at the Advanced Light Source. Footprinting allows the determination of specific binding interactions of proteins in the solution state, and as a function of time, and complements the information obtained by more standard structural biology techniques.

Paul Adams, having stepped down as Head of the BCSB in November 2011 after 7 years of leadership, continues his duties as PBD Deputy Division Director. In addition, Paul is now focusing his efforts on two new roles: ALS Division Deputy for Biosciences and Chair of the ALS Biosciences Council. During his tenure as Head of the BCSB, he oversaw performance upgrades to all of the BCSB beamlines. These upgrades have resulted in greatly improved X-ray flux for the beamlines and automated hardware and software that have enabled remote access for many of the BCSB users. The Division thanks Paul for his excellent leadership and looks forward to his continued efforts supporting biosciences both within PBD and at the Advanced Light Source.

We would like to thank Nick Sauter, a computer staff scientist in PBD, for stepping in as Acting Head of the Berkeley Center for Structural Biology (BCSB) during this transition. Nick has been a staff scientist since 2008, after coming to the Lab in 2000 as a research scientist. After receiving his A.B. from the University of Chicago and Ph.D. from Harvard University, Nick spent seven years at the University of California, San Francisco, first as a postdoctoral fellow with the Damon Runyon-Walter Winchell Cancer Research Foundation, and then as a research specialist in the Howard Hughes Medical Institute. In 1999, he became a research associate at the Stanford Synchrotron Radiation Laboratory, participating in the development of BLU-ICE, a highly-regarded software system that greatly facilitates the operation of crystallography beamlines worldwide.

Nick’s research focuses on the development of new computational methods that address problems in structural biology. His image-processing program LABELIT, is widely used at light sources to automatically interpret diffraction images. He has current NIH funding to implement new software for the latest generation of ultrafast X-ray detectors, and is developing new approaches to analyzing diffraction data from the Linac Coherent Light Source at SLAC. For more information about Nicholas Sauter visit the Computational Crystallography Initiative (CCI) website.

*Photos courtesy of Lawrence Berkeley Natl'l Lab - Roy Kaltschmidt, photographer